JS 10/21/21
RJA 2/18/22

Ecotox Report for Case # P-19-0007

General

[redacted]

Report Status: Complete
Status Date: 12/28/2018
CRSS Date: 12/06/2018
SAT Date:
SAT Chair:
Consolidated PMN: N
Consolidated Set:
Ecotox Related Cases:
Health Related Cases:
Submitter: Allnex USA Inc.
CAS Number: [redacted]
Chemical Name: [redacted]
Use: Intended use: Coating resin binder applied to metal substrates. This is a Polymer Exemption E1. [redacted] Analogues (same use): [redacted] Patents (same use): None.
Trade Name: [redacted]
PV-max(kg/yr): [redacted]
Ecotox Assessor: Nguyen, Amelia

Fate Summary Statement

Fate Summary Statement:
P-19-0007
FATE:
MW = [redacted] with [redacted] % < 500 and [redacted] % < 1000
Solid
S =
Negl.
VP < 1.0E-6 torr at 25 °C (E)
BP > 400 °C (E)

H <
1.00E-8 (E)
POTW removal (%) = 90 via sorption
Time for complete
ultimate aerobic biodeg > mo
Sorption to soils/sediments =
v.strong
PBT Potential: P3B1
FATE: Migration to ground water =
negl

Physical Chemical Information

Molecular Weight:	[redacted]		
Wt% < 500:	[redacted]	**Wt% < 1000:**	[redacted]
Physical State - Neat:	Solid (est.)		
Melting Point:		**Melting Point (est):**	
MP (EPI):			
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001
VP (EPI):			
Water Solubility:		**Water Solubility (est):**	<0.000001
Water Solubility (EPI):			
Henry's Law::			
Log Koc:		**Log Koc (EPI):**	
Log Kow:		**Log Kow (EPI):**	
Log Kow Comment:			

SAT Concern Level

Ecotox Rating (1):	1
Ecotox Rating Comment (1):	
Ecotox Rating (2):	

Ecotox Rating Comment (2):	
Ecotox Route of Exposure:	No releases to water

Ecotox Comments

Exposure Based Review (Eco):	N
Ecotox Comments:	
Exposure Based Testing:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1		

Eco-Toxicity Comment:

Fate Ratings

Removal in WWT/POTW (Overall): 90

Condition	Rating Values	Rating Description 1	2	3	4	Comment
Fish BCF:						
Log Fish BCF:						
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	

Removal in WWT/POTW (Overall): 90						
Condition	**Rating Values**	**Rating Description**				**Comment**
		1	**2**	**3**	**4**	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	
Bio Comments:						
Fate Comments:						

Ecotoxicity Values

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
Fish	96-h	LC50	*		
Daphnid	48-h	LC50	*		
Green Algae	96-h	EC50	*		
Fish	-	Chronic Value	*		
Daphnid	-	Chronic Value	*		
Green Algae	-	Chronic Value	*		

Ecotox Value Comments: Predictions are based on SARs for polyanionic polymers (insoluble); MW [redacted] with [redacted]% <500 and [redacted]% <1000; solid (est.) with an unknown MP (P); S = Negligible (P); effective

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
	concentrations based on [redacted]% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.				

Ecotox Factors

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Aquatic (ppb):	*			* = No effects at saturation for acute fish, daphnid, and green algae. Because hazards are not expected up to the water solubility limit, acute concentration of concern was not identified.
Chronic Aquatic (ppb):	*			* = No effects at saturation for acute fish, daphnid, and green algae. Because hazards are not expected up to the water solubility limit, chronic concentration of concern was not identified.

Factors	Values	Comments
SARs:	Polyanionic Polymers	
SAR Class:	Polymer-anionic-[redacted]-insoluble	
TSCA NCC Category?	Polyanionic Polymers (Momomers)	

Recommended Testing: Potentially Useful Information: None

Ecotox Factors Comments: Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA determined environmental hazard for this new chemical substance based on

SAR predictions for anionic polymers (special class within ECOSAR v.2.0). This substance falls within the TSCA New Chemicals Category of Polyanionic
Polymers (Monomers). Acute and chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all no effects at saturation. These toxicity values indicate that the new chemical substance is expected to have low environmental hazard. Because hazards are not expected up to the water solubility limit, acute and chronic concentrations of concern are not identified.

Environmental Risk: Risks to the environment were evaluated by comparing estimated surface water concentrations with the acute and chronic concentrations of concern. Risks to the environment were not identified due to no releases to water.

Comments/Telephone Log

Artifact	Update/Upload Time